Academic Program Review

ACADEMIC YEAR	2014	☐ Basic Skills ☒ Transfer ☒ Career Technical Education (CTE)
PROGRAM	Fire Sciences: Firefighter 1 and Fire Technology	
DEPARTMENT	Nursing and Allied health	
DIVISION	Health and Sciences	
SUBMITTER	Alfredo Estrada Jr./ Susan Carreon	

I. INSTITUTIONAL GOALS

INSTITUTIONAL GOAL **1**	**INSTITUTIONAL MISSION AND EFFECTIVENESS** – The College will maintain programs and services that focus on the mission of the College supported by data-driven assessments to measure student learning and student success.
INSTITUTIONAL GOAL **2**	**STUDENT LEARNING PROGRAMS AND SERVICES** – The College will maintain instructional programs and services which support student success and the attainment of student educational goals.
INSTITUTIONAL GOAL **3**	**RESOURCES** – The College will develop and manage human, technological, physical, and financial resources to effectively support the College mission and the campus learning environment.
INSTITUTIONAL GOAL **4**	**LEADERSHIP AND GOVERNANCE** – The Board of Trustees and the Superintendent/President will establish policies that assure the quality, integrity, and effectiveness of student learning programs and services, and the financial stability of the institution.

II. PROGRAM GOALS

A. PAST – EVALUATION OF PREVIOUS CYCLE OBJECTIVES/PROGRAM GOALS (SET IN PREVIOUS YEAR)

List your previous objectives/goals and associated Institutional Goals. All program goals must address at least one of the institutional goals.

	PAST PROGRAM GOALS (Describe past program goals.)	**INSTITUTIONAL GOAL(S)** (Check all that apply.)
1	**PAST PROGRAM GOAL #1**	**INSTITUTIONAL GOAL(S)**
	Identify Program Goal from Last Program Review: 1. Increase enrollment and diversity in the Fire Academy program	☐ 1 ☒ 2 ☐ 3 ☐ 4
	☐ Met ☐ Partially Met ☒ Not Met **Provide detail on any improvements/effectiveness and detail status on those not fully met:** Enrollment has remained stable... The diversity of the program is reflective of the community except that the program has not had female applicants in the recent past.	
2	**PAST PROGRAM GOAL #2**	**INSTITUTIONAL GOAL(S)**
	Identify Program Goal from Last Program Review: 2. Increase response on post-completion employment feedback	☐ 1 ☒ 2 ☐ 3 ☐ 4
	☐ Met ☒ Partially Met ☐ Not Met **Provide detail on any improvements/effectiveness and detail status on those not fully met:** The lead instructor has obtained data on completers of the Academy, but there currently is no systematic follow-up process	

3	PAST PROGRAM GOAL #3	INSTITUTIONAL GOAL(S)
	Identify Program Goal from Last Program Review: Increase community awareness of and faculty to participate in the final plans for the new CTE building and finalize the relocation plan prior to September 1, 2013.	☐ 1 ☐ 2 ☒ 3 ☐ 4
	☐ Met ☒ Partially Met ☐ Not Met **Provide detail on any improvements/effectiveness and detail status on those not fully met:** Plans for the move to the new building have been completed and equipment and supply purchases are in process. The actual move will take place in late spring/summer 2014.	

4	PAST PROGRAM GOAL #4	INSTITUTIONAL GOAL(S)
	Identify Program Goal from Last Program Review: Seek grant funding for furthering the curriculum, teaching methodologies, and/or technology at the industry standard identified as best practices or mandates within the state Fire Academy programs.	☐ 1 ☒ 2 ☒ 3 ☐ 4
	☐ Met ☒ ☐ Not Met **Provide detail on any improvements/effectiveness and detail status on those not fully met:** District and categorical (lottery and CTE) funds have allowed the program to meet on-going OSFM accreditation requirements. Funding will need to be on-going in the district budget. Faculty are working toward implementing several of the Fire Tech courses in an on-line format.	

B. PRESENT – DATA ANALYSIS AND PROGRAM HEALTH

1. Summarize and analyze all disaggregated data by day, evening, gender, ethnicity, and distance education regarding enrollments, fill rates, productivity, completion, success, retention, persistence, and transfer (complete a, b, & c). ***Attach graphs or trend data***.

   a. Discuss and chart the trends in enrollment and fill rate for each program by day and evening at the program level.

      With exceptions in 2011, the student success rates and completion rates have averaged from 88% to 100% and have trended higher in recent years. The classes in the Firefighter 1 program are offered during the day and on Saturdays only. Classes in Fire Technology classes have mostly been scheduled in evenings but enrollments and success have been lower due to working Firefighter schedule conflicts. Offering the Fire Tech and some core classes in an on-line format should help to increase enrollments.

   b. What are the trends in productivity? (WSCH/FTEF) The goal is 525 as per state guidelines. A low number means that we are below target levels for productivity. For example, in a small class that has a mandated cap of 15 students, the fill rate may be 100% but the productivity number (WSCH/FTEF) will be very low. A class with a cap of 40 students with a 100% fill rate will have a productivity number close to or above 525.

      The WSCH/FTEF is low due to the class cap of 20 students and additional safety requirements requiring low Faculty/student ratios. Again, when and if enrollments increase in the new on-line classes, the productivity should increase. A full-time faculty member/coordinator would also increase time for recruitment and marketing efforts.

   c. Discuss and chart the success and retention rates by day, evening (extended day), and online classes in each program and identify gaps.

      The students have only one scheduling option for the Firefighter 1 program so there is no variance by class time. The Fire Tech classes will be more successful day or evening if more are offered on-line to improve access for working firefighters.

   d. Discuss and chart the success and retention rates in each program and identify gaps for five ethnic groups. (African-American, White, all Hispanics, Other, Unknown).
      The data does not show significant differences between ethnic groups, though the program ethnic make-up is representative of

the community. There have been no females in the program in recent years and this is a goal for the future.

e. Discuss the trends in the number of degrees or certificates awarded, if applicable. (You may be able to expand more about this in B.3 below.)

The number of degrees is low and it is not a requirement of this program. The number of certificates is low and this could be due to students not being able to register for EMT105 due to low registration priority or not actively applying for the Certificate. IN addition the state OSFM Certificates permit employment and thus may have more significance for the students. Faculty have been providing more incentive and information to students about the importance of getting the Certificate and we have recently taken steps to schedule the EMT course just prior to the Academy first semester courses.

f. What program changes, if any, will you recommend that you expect would have a positive effect on your students in your program, if applicable?

Schedule the EMT course to allow Fire Academy admitted students to enroll successfully.
Continue to develop online courses in Fire Technology to improve student access and enrollments in these courses.
This is a full-time program that requires very complex specialized scheduling, equipment, facilities and Accreditation compliance issues-yet it is only staffed by part-time faculty.
The program needs a full-time coordinator/faculty in order to ensure student success and compliance with Accreditation Standards.

2. Summarize revisions, additions, deletions, or alternate delivery methods to courses and/or program based on the last program review.

The faculty have been working to develop many of the Fire Technology courses in an on-line format. Completing these efforts will improve working Firefighter access to classes and should dramatically increase enrollments in these courses. The firefighter program has secured OSFM accreditation required equipment and has a budget plan to ensure continued compliance. The Fire Sciences programs continue to lack a stable plan for program coordination and leadership.

3. Evaluate the program's viability by addressing program completion, size (FTES), projections (growing/stable/declining), and quality of outcomes. For CTE programs, also include labor market projections, placement, and performance on external testing/exams (i.e. ASE, NABCEP) and industry-recognized credentials, placement, and performance on external testing or exams (NCLEX, ASC, NAP).

   The program is small but healthy and meets a definite community need for firefighters and for working firefighter career growth. It enjoys good support from local Fire Chiefs. The Firefighter program at Imperial Valley College meets a documented labor market demand. Employment trends for this field are derived from a variety of sources. These are listed below:

Employment Trends (Employment Development Department):

Occupation	TOP Code	SOC Code	2008	Average Job Openings per Year
Fire Fighters	2133.00	332011	150	7*

*Same data as 2012. No updates from State Employment Development
Occupational Employment Projections 2008-2018
Imperial County
http://www.labormarketinfo.edd.ca.gov/CommColleges/

Employment Trends (Faculty Assessment):
During the past eight (8) years a minimum of 62 graduates, of the IVC Fire Academy, have been employed in a local fire department. This has been verified with the local fire departments. The labor market data does not appear indicative of the employment numbers tracked by the Academy Coordinator.

C. FUTURE – LIST OF "SMART" (SPECIFIC MEASURABLE ATTAINABLE RELEVANT TIME-LIMITED) PROGRAM OBJECTIVES FOR NEXT ACADEMIC YEAR TO ADDRESS PROGRAM IMPROVEMENT, GROWTH, OR UNMET NEEDS/GOALS. ALL PROGRAM GOALS MUST ADDRESS AT LEAST ONE OF THE INSTITUTIONAL GOALS.

FUTURE PROGRAM GOALS (Describe future program goals. List in order of budget priority.)	INSTITUTIONAL GOAL(S) (Check all that apply.)

1	FUTURE PROGRAM GOAL #1 Budget Priority #1	INSTITUTIONAL GOAL(S)
Identify Goal:	Maintain Fire Academy Accreditation Standards	☒ 1 ☒ 2 ☒ 3 ☐ 4
Objective:	1.1 Maintain full compliance with all OSFM standards	
Task(s): 1.1.1 Institutionalize funding for required equipment/supplies in District general fund budget- $ 33,000 (recurring) 1.1.2 Purchase surplus Fire apparatus from City of Imperial for real world student experience- $ 7,300, (one time) and $200 (estimate recurring-maintenance). The engine will serve both the academy and Driver Operator programs for the college. Imperial County Fire has an MOU with the college and will assist in housing the Engine if needed. 1.1.3 Develop and disseminate targeted marketing materials to recruit more women applicants in Firefighter 1 program- est. $4,000		
Timeline:	July 2014	

EXPENSE TYPE	FUNDING TYPE		RESOURCE PLAN (Check all that apply.)	BUDGET REQUEST
☒ One-Time $7,300 + $ 4,000 ☒ Recurring $33,200	☒ Categorical (CTE) Specify: $4,000 + $7,300	☒ General Fund $33,600	☐ Facilities ☒ Marketing ☒ Technology ☐ Professional Development ☐ Staffing	$44,400

2	FUTURE PROGRAM GOAL #2 Budget Priority #2	INSTITUTIONAL GOAL(S)
Identify Goal: Stabilize leadership of Fire Science programs		☐ 1 ☒ 2 ☒ 3 ☒ 4
Objective: 2.1 Institutionalize a full-time position of Faculty/ Coordinator for Fire Sciences (Academy and Technology) 2.2 Institutionalize Faculty Coordinator Stipend for current part-time faculty if no full-time faculty approved/hired		
Task(s): 2.1.1 Seek college approval to hire full-time faculty- high priority Est-. $80,000 2.1.2 Screen/hire qualified faculty for position 2.2.1 Budget for regular stipend for coordinator@ 4 hours/week for 32 weeks- $7800 (if 2.1 not achieved)		
Timeline: By August 1, 2014		

EXPENSE TYPE	FUNDING TYPE		RESOURCE PLAN (Check all that apply.)	BUDGET REQUEST
☐ One-Time ☒ Recurring	☐ Categorical Specify:	☒ General Fund	☐ Facilities ☐ Marketing ☐ Technology ☐ Professional Development ☒ Staffing	$80,000 Or ($7,800)_____

3	FUTURE PROGRAM GOAL #3 Budget Priority #3	INSTITUTIONAL GOAL(S)
Identify Goal:	Increase working firefighter's access to Fire Technology Courses	☐ 1 ☒ 2 ☐ 3 ☐ 4
Objective:	3.1 Increase on-line Fire courses	
Task(s): 3.1.1 2 Faculty complete training/preparation for approval as on-line instructor by Fall 2014 3.1.2 3 of 6 "core" core courses receive approval in on-line format by the DE committee by Fall 2014 3.1.3 At least 2 of the 6 designated fire officer courses to receive approval in on-line format by the DE committee by fall 2015		
Timeline:	2014/2015	

EXPENSE TYPE	FUNDING TYPE		RESOURCE PLAN (Check all that apply.)	BUDGET REQUEST
☐ One-Time ☐ Recurring	☐ Categorical Specify:	☐ General Fund	☐ Facilities ☐ Marketing ☒ Technology ☐ Professional Development ☐ Staffing	$_____

TOTAL BUDGET REQUEST	$124,400

1. How will your enhanced budget request improve student success?
   This is a program that could be much more successful with more stable leadership. This is a full-time program that requires very complex, specialized scheduling, equipment, facilities and Accreditation compliance issues-yet it is only staffed by part-time faculty. The program needs a full-time coordinator/faculty in order to ensure student success and compliance with Accreditation Standards.

   Fire Sciences must continue to meet OSFM Accreditation requirements for on-going investment in necessary equipment and supplies to ensure compliance. Targeted efforts to recruit more women to the field will improve the diversity in the Firefighter 1 program. The unique opportunity to purchase a surplused Fire engine apparatus from the City of Imperial, would greatly enhance real world workplace experience for the Firefighter 1 Students and will serve both the Academy and Driver Operator courses for the college.

III. INSTITUTIONAL STUDENT LEARNING OUTCOMES (ISLOs)

ISLO 1	COMMUNICATION SKILLS
ISLO 2	CRITICAL THINKING SKILLS
ISLO 3	PERSONAL RESPONSIBILITY
ISLO 4	INFORMATION LITERACY
ISLO 5	GLOBAL AWARENESS

IV. PROGRAM LEARNING OUTCOMES (PLOs)

ISLO(S) [Link PLO to Appropriate ISLO(s).]	

PROGRAM LEARNING OUTCOME #1	**ISLO(S)**
Identify Program Outcome: Students will demonstrate knowledge and appropriate use of fire equipment for a given firefighting scenario Est. Completion Date: At the end of FIRE 130 (fall) completion Way(s) to assess: Course final and OSFM testing for fire academy basics.	☒ ISLO 1 ☒ ISLO 2 ☒ ISLO 3 ☐ ISLO 4 ☐ ISLO 5
Measurable Outcome Summary: Student success for this course was 95% in fall 2012	
☒ Met ☐ Partially Met ☐ Not Met **Provide detail on any improvements/effectiveness and detail status on those not fully met:**	

PROGRAM LEARNING OUTCOME #2	ISLO(S)
Identify Program Outcome: Students will demonstrate appropriate selection and implementation of firefighting methods and application of the Incident Command and Emergency Management Systems. Est. Completion Date: At the end of FIRE 131 (spring) completion Way(s) to assess: Course final and OSFM testing for fire academy basics.	☐ ISLO 1 ☐ ISLO 2 ☐ ISLO 3 ☐ ISLO 4 ☐ ISLO 5
Measurable Outcome Summary: Student success for this course was 95% for spring 2013	
☒ Met ☐ Partially Met ☐ Not Met **Provide detail on any improvements/effectiveness and detail status on those not fully met:**	

Program Outcomes and Course Alignment Grid for Imperial Valley College

Program: Fire Academy Certificate & Program Completed on: March, 2014

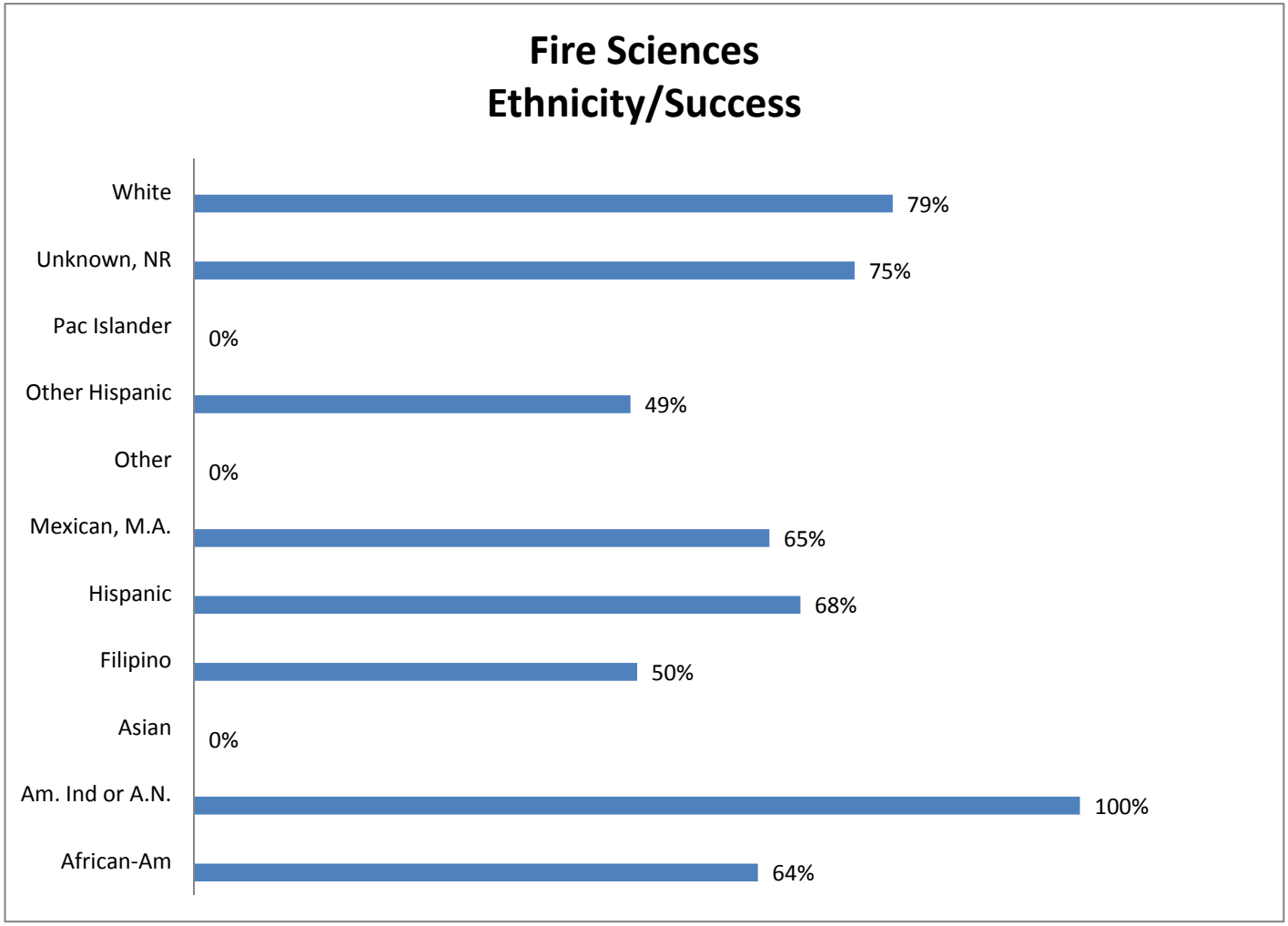
Prepared by: Alfredo Estrada, Robert Malek, Susan Carreon Tina Aguirre

Course	Communication	Critical Thinking	Personal Responsibility	Information Literacy	Global Awareness	# of Outcomes identified
FIRE 105	3	3	3	3	3	7
FIRE 109	3	3	3	1	1	3
FIRE 117	1	3	1	0	0	1
FIRE 121	2	3	2	3	0	3
FIRE 122	2	3	3	3	3	1
FIRE 130	3	3	3	3	1	6
FIRE 131	3	3	3	3	1	6
PE 100	0	3	2	1	0	2
PE 104	3	3	3	3	1	2

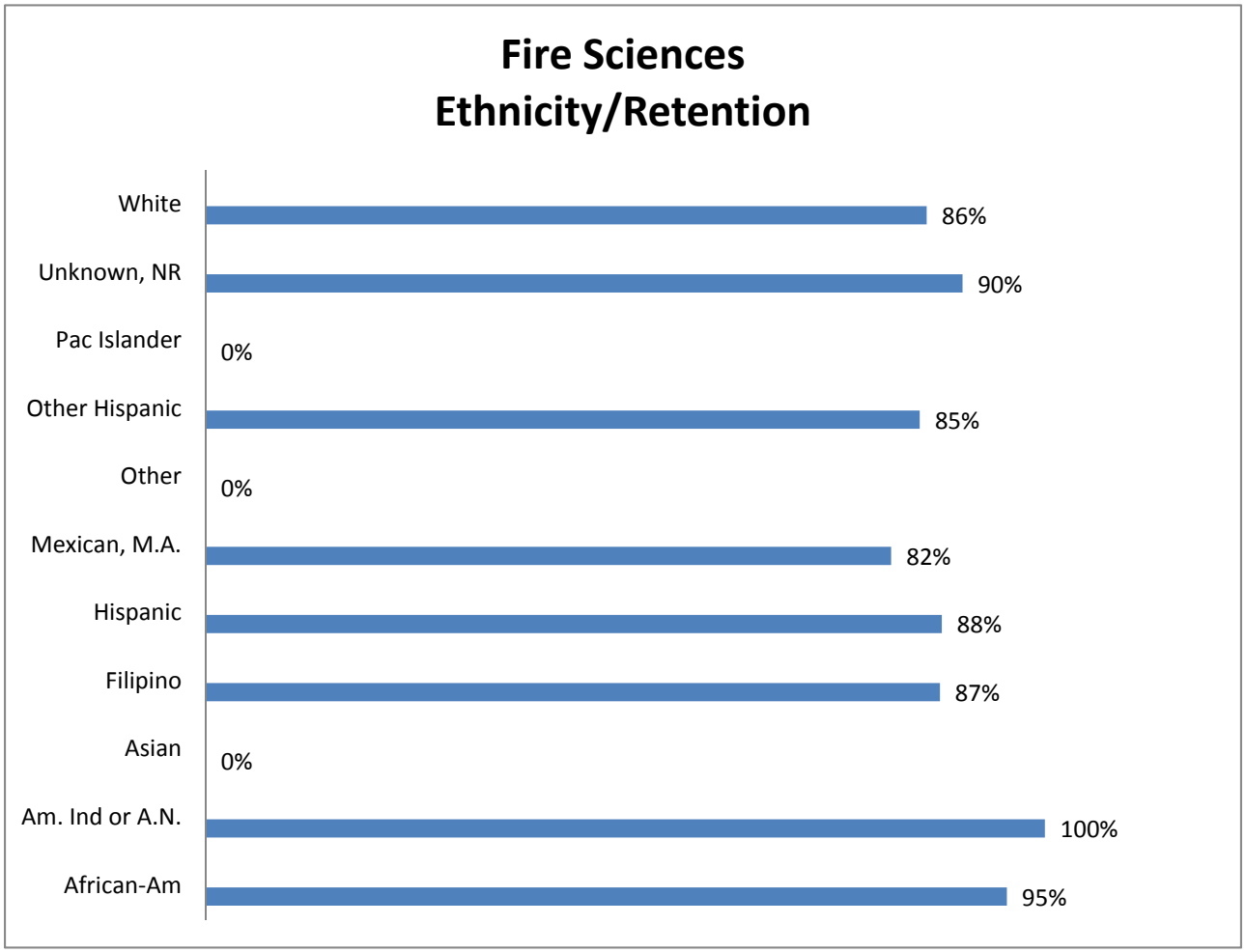
**FIVE POINT KEY: Using this key, to receive a 3 or 4 the ISLO needs to be measured through the outcome and assessment.

4= this is a STRONG focus of the course. Students are tested on it or must otherwise demonstrate their competence in this area.
3= this is a focus of the course that will be assessed.
2= this is a focus of the course, but is NOT assessed.
1= this is briefly introduced in the course, but not assessed.
0= this is not an area touched on in the course.

	Success
African-Am	64%
Am. Ind or A.N.	100%
Asian	NA
Filipino	50%
Hispanic	68%
Mexican, M.A.	65%
Other	NA
Other Hispanic	49%
Pac Islander	NA
Unknown, NR	75%
White	79%

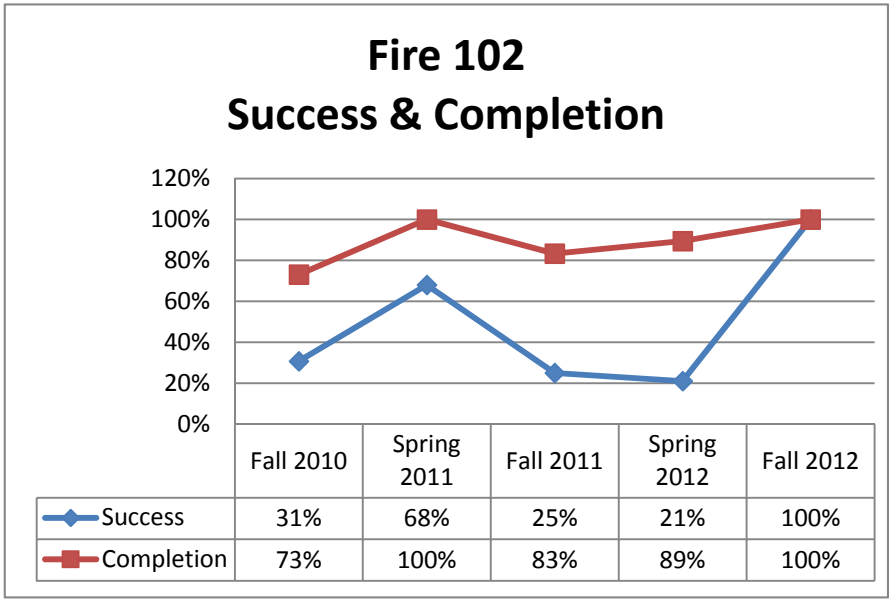


	Retention
African-Am	95%
Am. Ind or A.N.	100%
Asian	NA
Filipino	87%
Hispanic	88%
Mexican, M.A.	82%
Other	NA
Other Hispanic	85%
Pac Islander	NA
Unknown, NR	90%
White	86%

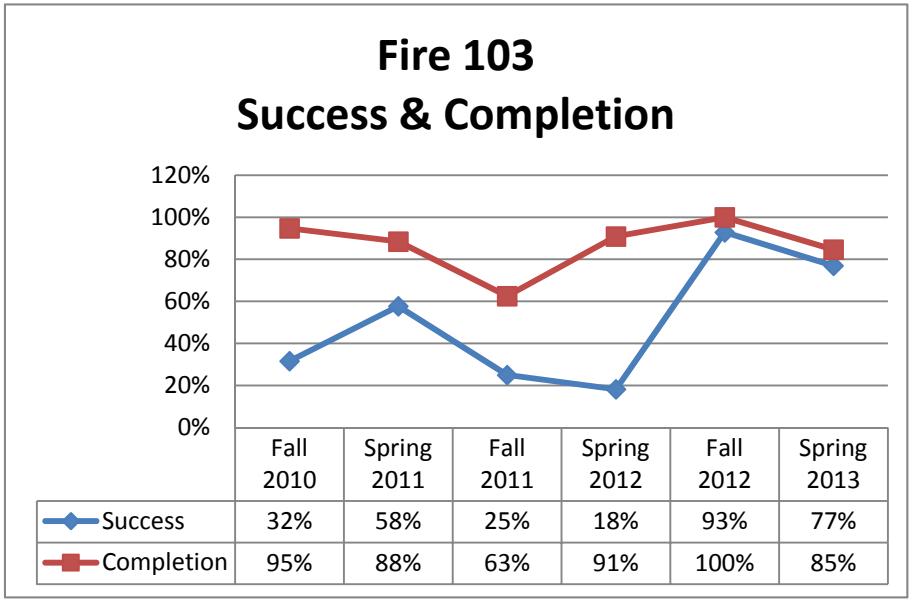


	Fall 2010	Spring 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013
Success	37%	39%	18%	24%	88%	41%
Completion	48%	75%	53%	68%	94%	76%

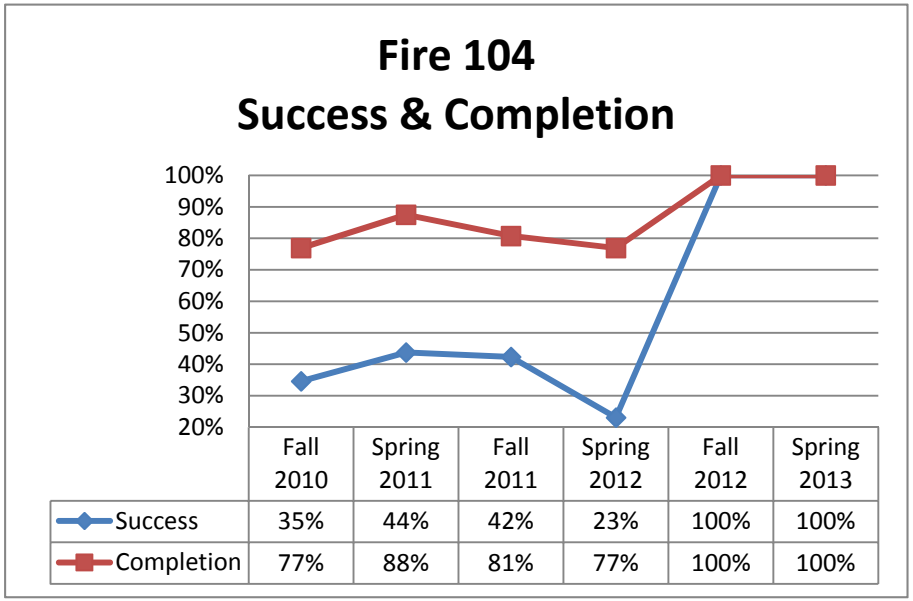
	Fall 2010	Spring 2011	Fall 2011	Spring 2012	Fall 2012
Success	33%	47%	24%	22%	91%
Completion	42%	79%	66%	70%	95%



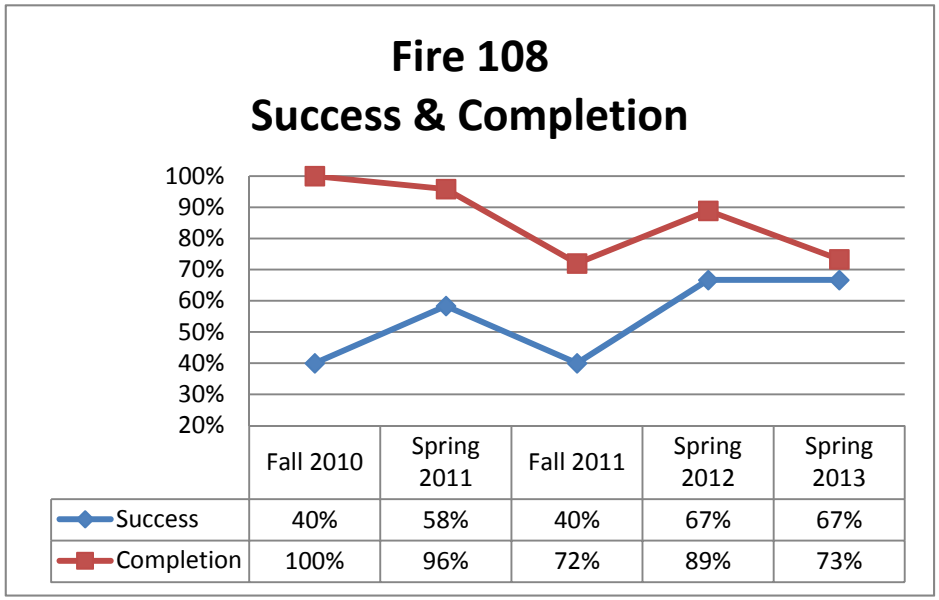
	Fall 2010	Spring 2011	Fall 2011	Spring 2012	Fall 2012
Success	31%	68%	25%	21%	100%
Completion	73%	100%	83%	89%	100%



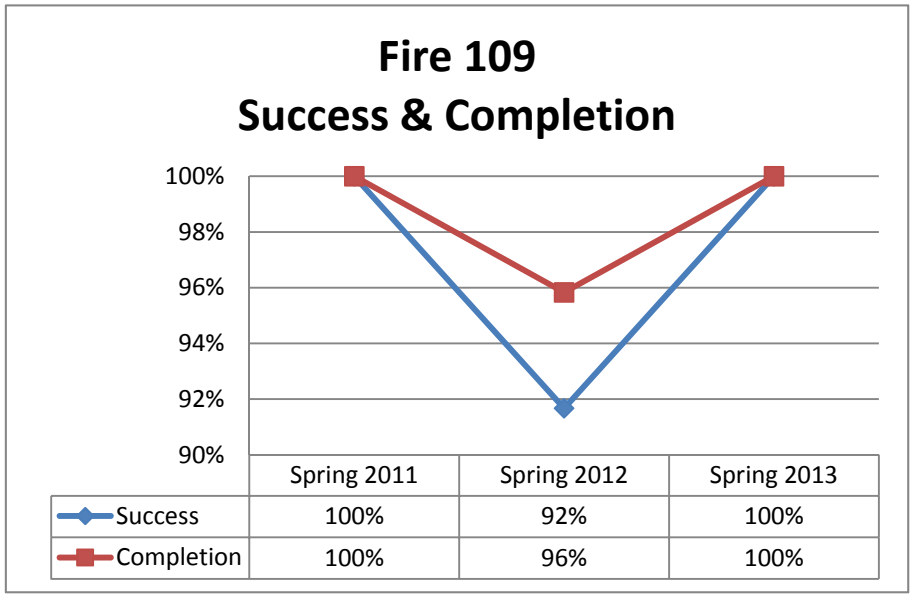
	Fall 2010	Spring 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013
Success	32%	58%	25%	18%	93%	77%
Completion	95%	88%	63%	91%	100%	85%



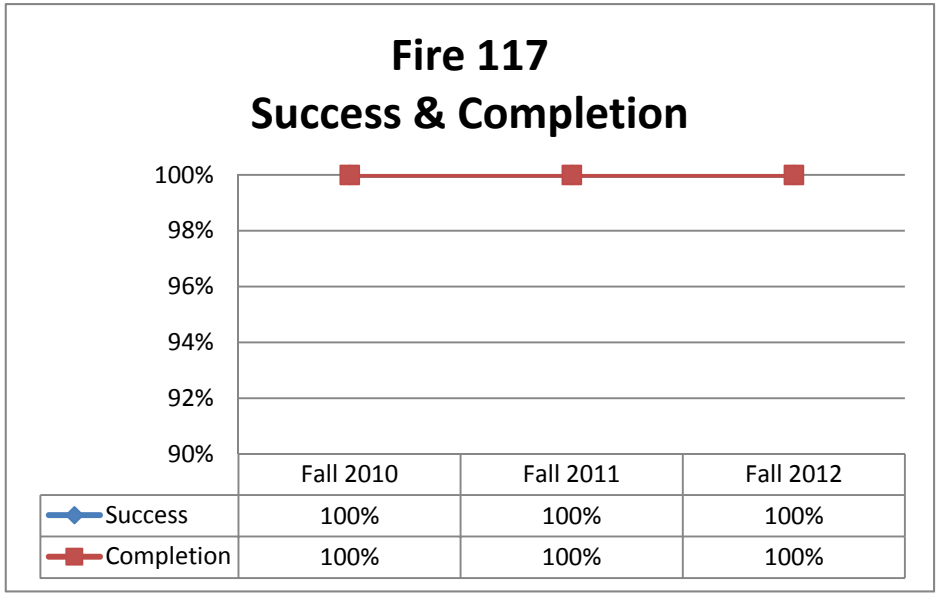
	Fall 2010	Spring 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013
Success	35%	44%	42%	23%	100%	100%
Completion	77%	88%	81%	77%	100%	100%



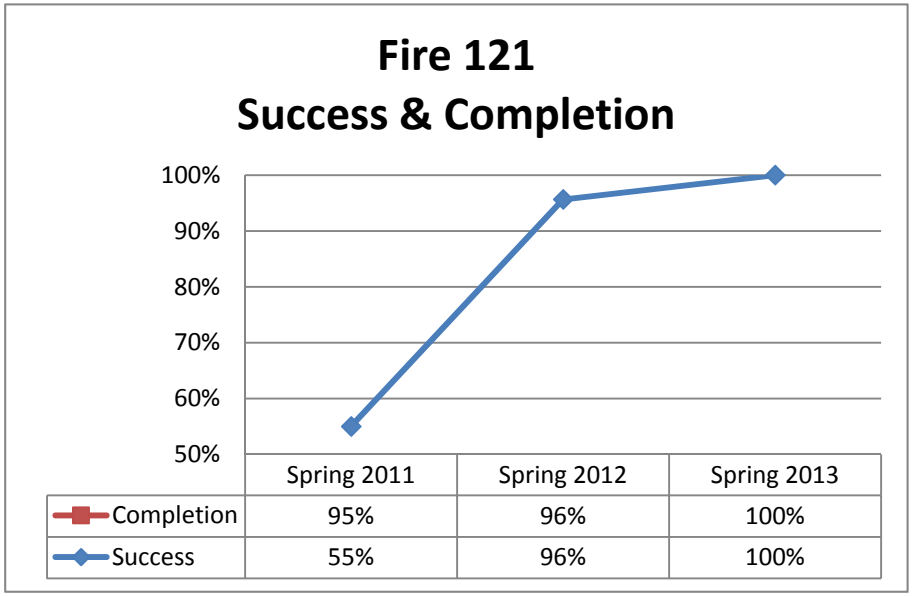
	Fall 2010	Spring 2011	Fall 2011	Spring 2012	Spring 2013
Success	40%	58%	40%	67%	67%
Completion	100%	96%	72%	89%	73%

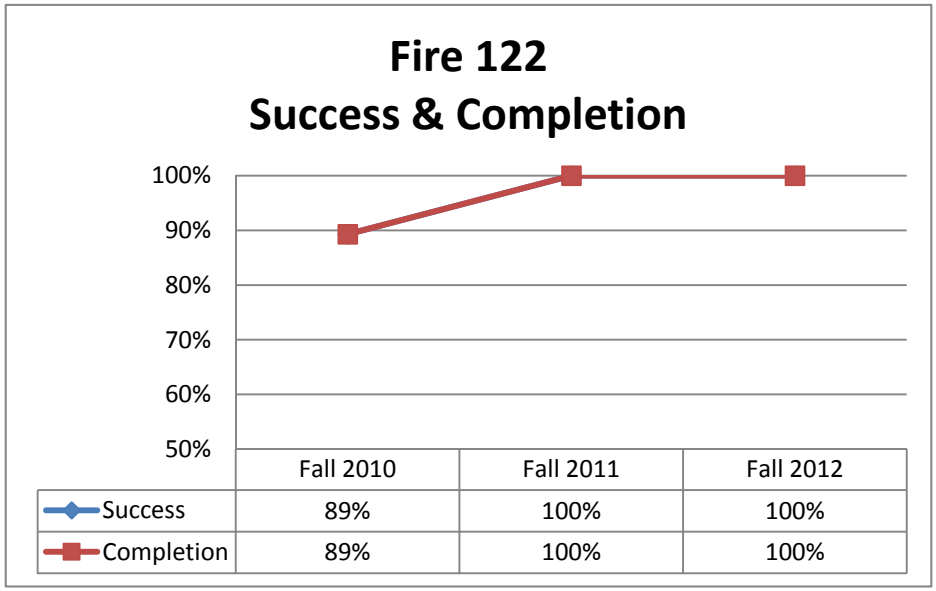


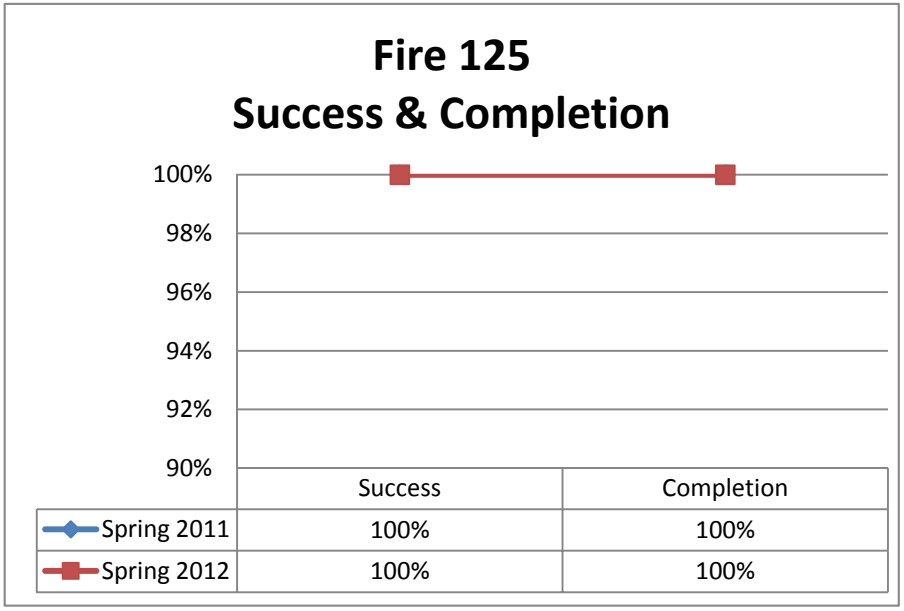
	Spring 2011	Spring 2012	Spring 2013
Success	100%	92%	100%
Completion	100%	96%	100%

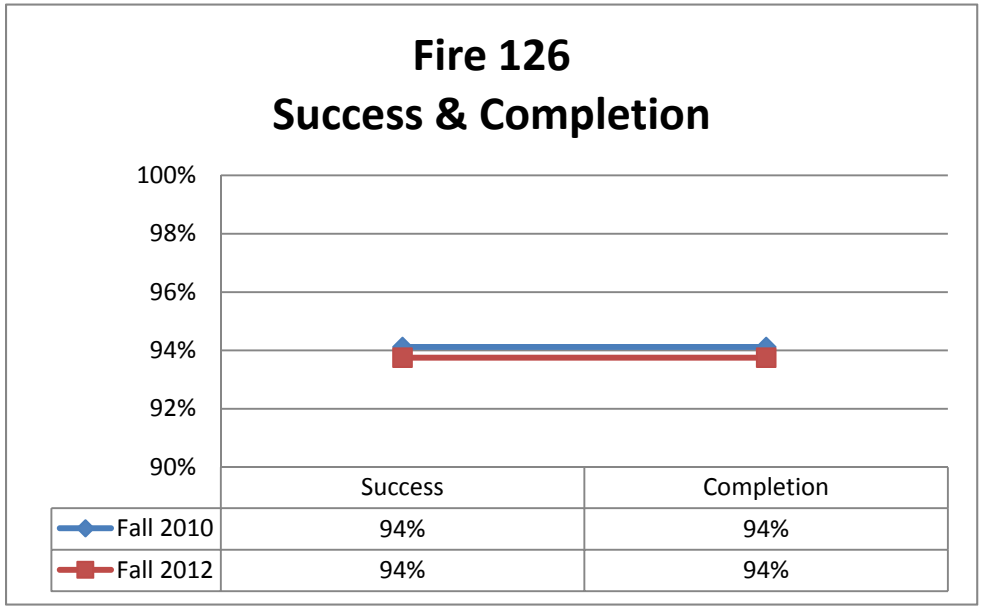


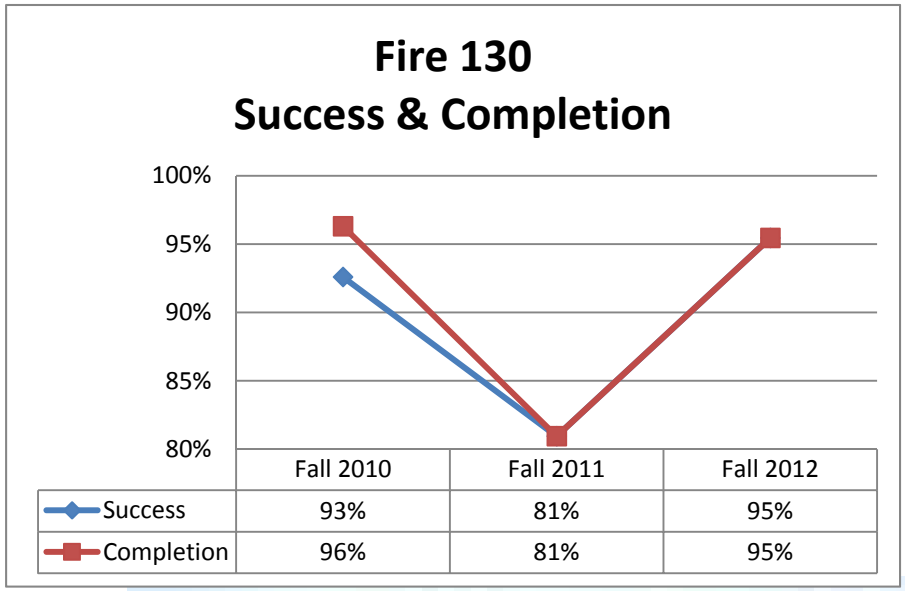
	Fall 2010	Fall 2011	Fall 2012
Success	100%	100%	100%
Completion	100%	100%	100%

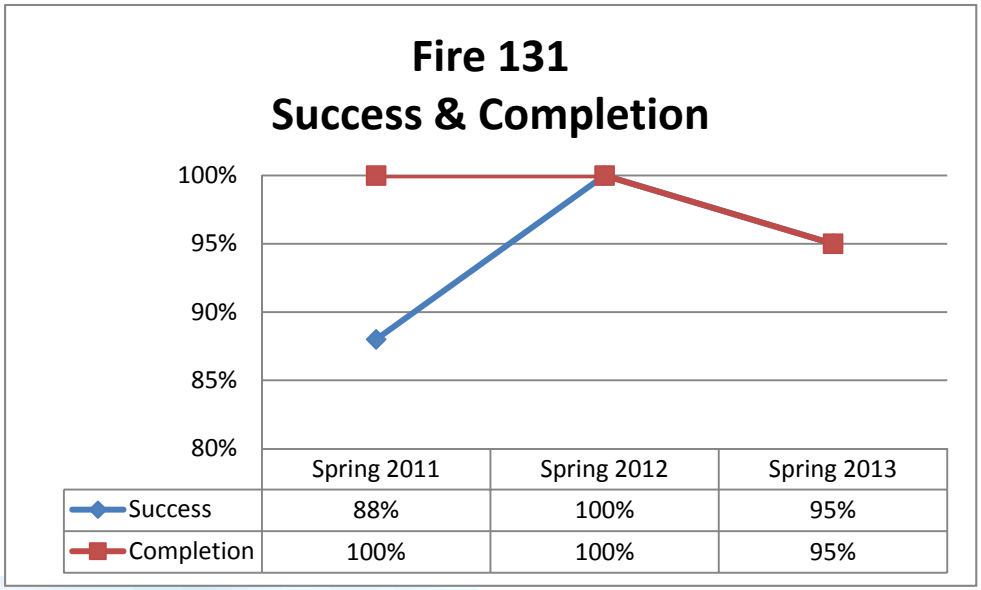

Fire 121
Success & Completion
100%
90%
80%
70%
60%
50%
Spring 2011
Spring 2012
Spring 2013
Completion 95% 96% 100%
Success 55% 96% 100%


Fire 122
Success & Completion
100%
90%
80%
70%
60%
50%
Fall 2010
Fall 2011
Fall 2012
Success 89% 100% 100%
Completion 89% 100% 100%


Fire 125
Success & Completion
100%
98%
96%
94%
92%
90%
Success
Completion
Spring 2011 100% 100%
Spring 2012 100% 100%


Fire 126
Success & Completion
100%
98%
96%
94%
92%
90%
Success
Completion
Fall 2010 94% 94%
Fall 2012 94% 94%





Requested Fire Engine